

7878

Diag. Cht. No. 1257-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey ..... HYDROGRAPHIC

Field No. SO-1150 ..... Office No. H-7878

LOCALITY

State ..... FLORIDA

General locality WEST COAST

Locality OLD TAMPA BAY, NORTH OF COURTNEY

CAMPBELL CAUSEWAY

194/ 50

CHIEF OF PARTY

J. D. Thurmond

LIBRARY & ARCHIVES

DATE ..... NOVEMBER 9, 1951.

821821

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

**HYDROGRAPHIC TITLE SHEET**

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-7878

Field No. So-1150

State FLORIDA

General locality WEST COAST

Locality OLD TAMPA BAY, NORTH OF <sup>COURTNEY CAMPBELL</sup>~~DAVIS~~ CAUSEWAY

Scale 1:10,000 Date of survey 20 June to 28 July, 1950

Instructions dated 10, Mar. 1950 to 3 Apr. 1950

Vessel SOSBEE SKIFF NO. 735

Chief of party JAMES D. THURMOND

Surveyed by JAMES D. THURMOND & I.R. RUBOTTOM

Soundings taken by ~~fathometer~~ graphic recorder, hand lead, ~~W.F.~~ POLE

Fathograms scaled by H.E.M.

Fathograms checked by I.R.R.

Protracted by W.F. JONNS

Soundings penciled by W.F. JONNS

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~

REMARKS: This survey was smooth plotted by the Hydrographic Section of the Norfolk District Office.

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY H-7878 (SO-1150)

OLD TAMPA BAY, FLORIDA - NORTH OF ~~DAVIS~~ CAUSEWAY  
*COURTNEY CAMPBELL*

JUNE & JULY 1950

SCALE: 1:10,000

U.S.C.&G.S.S. SOSBEE, JAMES D. THURMOND, CHIEF OF PARTY

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A. PROJECT:

Special Survey under project CS-336 with the following instructions and correspondence:

1. General Instructions dated 2 March 1949, ref. 22-MEK, S-2-50.
2. Request for Survey from Florida Power Corp., dated 6 March 1950.
3. Acting Director's Letter dated 10 March 1950, 201-RS.
4. Acting Director's Letter dated 3 April 1950, ref. 22-rcc, S-1-50.

B. SURVEY LIMITS AND DATES:

This survey Covers <sup>*COURTNEY CAMPBELL*</sup> the entire area of Old Tampa Bay, Fla., North of ~~Davis~~ Causeway, from a point east of the eastern end of the main bridge span, Longitude 82°-37'.0 W.

Field work was begun on this survey 6 June 1950, when a tide gage was installed on the municipal pier at Safety Harbor, Fla. and recovery of Control Stations was started. Field work was completed 28 July 1950. Work was delayed during the latter part of June and the early part of July by winds which made the water too rough for operation of the skiff being used for executing the hydrography.

C. VESSEL AND EQUIPMENT:

All hydrography was accomplished using specially built flat bottomed 25 foot skiff No. 735. The skiff was powered with two Johnson 10 horsepower outboard motors and operated from the U.S.C.&G.S.S. SOSBEE which was anchored in the bay south of Booth Point, and based out of St. Petersburg, Fla.

C. VESSEL AND EQUIPMENT CONT.:

The speed of the skiff was slightly more than 5 knots at full speed and has a turning radius of approximately 20 meters.

The soundings were obtained wherever possible with 808-J Portable depth recorders Nos. 117-S and 115-S, and a modified NK-7, 808-G No. 140-SP. In depths too shoal to record on the fathometer and in areas of heavy grass growths in the bottom, the soundings were obtained with a sounding pole.

D. TIDE AND CURRENT STATIONS:

A portable tide gage established at Safety Harbor, Florida, with the tide staff zero 3.3 feet below the plane of reference (MLW), was used to reduce all soundings. (See attached TIDE NOTE.)

A current station of 50 hours duration was occupied Northwest of Booth Point in Latitude 28°-00.'6 N., Longitude 82°-40.'23 W.

E. SMOOTH SHEET:

Smooth Sheet will be prepared and plotted by the Norfolk, Virginia Processing Office.

F. CONTROL STATIONS:

Triangulation stations are all on the North American 1927 datum.

Stations BOOTH, COOPER, STONY and Safety Harbor Municipal Tank were located in 1926 by R. L. Schoppe, Chief of Party.

Clearwater Radio Towers (WSUN) were located in 1934 by G. L. Anderson, Chief of Party.

Topographic Stations were obtained from the following:

<u>Reg. No.</u>	<u>Date</u> <i>Located</i>	<u>Method of Location</u>
T-8377 (1943)	1941	Air Photographic
T-8380 (1943)	1941	" "
T-8381 (1943)	1941	" "

Three (3) hydrographic stations, IRK, PIN & LAG, were located during the progress of the survey by 3-point fix sextant angles.

F. CONTROL STATIONS CONT.:

The position of topographic station FAR 1941 was found to be in error and its position was redetermined by sextant angles. *Form 524 G.P.s revised.*

G. SHORELINE AND TOPOGRAPHY:

The <sup>(1943)</sup>shoreline <sup>(1943)</sup>is from <sup>(1943)</sup>film positives of <sup>reviewed</sup>topographic sheets T-8377, T-8380 and T-8381 which were furnished by the Washington Office. The shoreline and details were found to be accurate and adequate for charting purposes.

The low water line is defined by soundings over most of the area.

H. SOUNDINGS:

Hydrography was accomplished by the use of 808 depth recorders mounted in a 25-foot flat bottomed skiff with the transceivers placed inside and on the bottom of the skiff, each in a separate water-tight compartment. Recorders 808-J Nos. 115-S and 117-S were used from the beginning of the survey until noon of p-day on 26 July. After this time a modified NK-7, No. 140-SP was used.

A pole marked in feet by alternate strips of red and white paint was used for some of the very shoal soundings and in areas of heavy grass growths.

Fathometer was adjusted to read correct depth by adequate bar checks and adjustment of the initial reading in accordance with section 5545 of the Hydrographic Manual. Depths under 3 feet were usually very indefinite on the fathograms, and these were usually supplemented by pole soundings.

I. CONTROL OF HYDROGRAPHY:

The hydrography was controlled by 3-point sextant fixes on signals located by triangulation, air photographic, or sextant fix. No unusual or substandard methods were used, except for one sounding line a short distance up the main channel of Double Branch Creek. On this line the positions were spotted on the boat sheet from topographic features.

J. ADEQUACY OF SURVEY:

This survey is Complete and adequate to supersede prior surveys for Charting. The depth curves can be adequately drawn.

K. CROSSLINES:

Crosslines total approximately 10 percent of the lines run and discrepancies at Crossings were not over 1 foot.

L. COMPARISON WITH PRIOR SURVEYS:

The most recent prior survey of the area was made in 1926 on a scale of 1:20,000, Register No. 4562.

In general the new survey is in close agreement with this prior survey over most of the central portions of the bay. The prior survey did not extend very close inshore particularly along the western shore between Cooper Point and Phillippi Point and into Mobbly Bay.

COURTNEY CAMPBELL

Extensive dredging operations along the north side of ~~Davis~~ Causeway which were made in Connection with Construction of the Causeway, had not been made at the time of the prior survey. This is an irregular dredged area extending to depths of ~~50~~ ft. in places with occasional small lumps along the edges. <sup>33</sup>

The most prominent of these lumps extends to a least depth of 5.0 feet and is found in Latitude 27°-58'.10 North, Longitude 82°-39'.49 West at position 131 m.

Along the waterfront of the town of Safety Harbor Considerable dredging has been done since the prior survey.

A notation on the prior survey in upper Mobbly Bay states that the area is " mostly bare at low water." The new survey shows that depths of 2 feet extend over most of this area.

M. COMPARISON WITH CHART:

The Comparisons drawn in " L " are also applicable <sup>to</sup> when comparison ~~is~~ made with Chart No. 587.

N. DANGERS AND SHOALS:

No new dangers or shoals were discovered except the 5.0 foot sounding on the north side of the dredged area north of Davis Causeway in Latitude 27°-58'.10 North, Longitude 82°-39'.49 West.

O. COAST PILOT INFORMATION:

No new information was found that cannot be adequately shown on the Chart.

P. AIDS TO NAVIGATION:

There are no aids to navigation in the area at this time.

Q. LANDMARKS FOR CHARTS:

No new Landmarks for Charts were located. The new power plant on Booth Point should be located and Charted when completed. *stack charted 2-19-52*

R. GEOGRAPHIC NAMES:

No new Geographic Names are recommended and all names agree with those Charted, except " Davis Causeway " is referred to as " Courtney & Campbell Causeway." Courtney Campbell Causeway ✓

S. SILTED AREAS:

There are no silted areas as such. The bottom is a soft mud over most of the bay.

is the official name, per letter from Tampa office 1-16-51 L.H.

Z. TABULATION OF APPLICABLE DATA:

Applicable data previously forwarded to Washington Office.

1. Portable Tide Gage marigrams forwarded 29 June 1950 and 5 August 1950. ✓
2. Record of Current Observations, Station " D ", forwarded 5 August 1950.



Ira R. Rubottom  
Commander, C&GS

Approved and Forwarded:



James D. Thurmond  
Commander, C&GS  
Chief of Party

TIDE NOTE

Sheet SO-1150

The soundings on this sheet were reduced for tide using the Tidal Data obtained from Portable Tide Gage installed on the municipal Pier at Safety Harbor, Fla. The hourly heights were taken direct from the marigrams.

The Value of Mean Low Water on the staff was determined from the records by the Washington Office and was 3.3 feet.



LIST OF SIGNALS  
To Accompany

HYDROGRAPHIC SURVEY H-7878.

TRIANGULATION STATIONS

COO COOPER, 1926-41  
NOR CLEARWATER, RADIO STA. WFLA-WSUN, NORTHERLY OF TWO RADIO TOWERS, 1934  
SOU " " " " " " " " " " " " " " " "  
OTH BOOTH, 1926-34  
STO STONY, 1926  
TAN SAFETY HARBOR, SILVER MUNICIPAL TANK, 1926-41

MARKED TOPOGRAPHIC STATIONS

ARK, 1941 (T-8380) HAP, 1941 (T-8380)  
BAR, 1941 (T-8380) LEE, 1941 (T-8377)  
BOO, 1941 (T-8377) MAG, 1941 (T-8377)  
DON, 1941 (T-8377) RAG, 1941 (T-8377)  
FRY, 1941 (T-8377)

TOPOGRAPHIC STATIONS

All (T-8380) Lub (T-8377)  
Bul (T-8380) Man (T-8377)  
Bus (T-8380) Mon (T-8377)  
Con (T-8381) Oat (T-8377)  
Cor (T-8377) Pier (T-8380)  
Doc (T-8380) Rail (T-8377)  
Eas (T-8381) Rov (T-8380)  
Egg (T-8381) Tas (T-8381)  
Gab (T-8377) Tom (T-8381)  
Hen (T-8381) Tot (T-8377)  
Ing (T-8380) Use (T-8380)  
Joe (T-8377)

PHOTOGRAMETRIC FEATURES

End (T-8380) Wes (T-8380)

HYDROGRAPHIC STATIONS

Far (vol. 8, pg. 2)  
Irk (vol. 8, pg. 2)  
Lag (vol. 8, pg. 2)  
Pin (vol. 8, pg. 2)

See Processing office list

LIST OF SIGNALS

SHEET SO-1150

All - T-8380  
Ark - T-8380

Bar - T-8380  
Boo - T-8377  
Bul - T-8380  
Bus - T-8380

Con - T-8381  
Coo - COOPER-1926  
Cor - T-8377

Doc - T-8380  
Don - T-8377

Eas - T-8381  
Egg - T-8381  
End - T-8380

Far - { T-8380  
          SO-1150  
Fry - T-8377

Gab - T-8377

Hap - T-8380  
Hen - T-8381

Ing - T-8380  
Irk - SO-1150

Joe - T-8377

Lag - SO-1150  
Lee - T-8377  
Lub - T-8377

Mag - T-8377  
Man - T-8377  
Mon - T-8377

Nor - Radio Station, WSUN  
          North Tower, 1934

Oat - T-8377  
Oth - BOOTH, 1926

Pier- T-8380  
Pin - SO-1150

Rag - T-8377  
Rail- T-8377  
Rov - T-8380

Sou - Radio Station, WSUN  
          South Tower, 1934

Sto - STONY, 1926

Tan - Safety Harbor Silver  
          Municipal Tank, 1934

Tas - T-8377  
Tom - T-8381  
Tot - T-8377

Use - T-8380

Wes - T-8380

## STATISTICS

For Hydrographic Survey H-7878 (SO-1150)

U.S.C.&G.S.S. SOSBEE - Project CS - 336

Special Survey, Old Tampa Bay, Florida

Date 1950	Day Letter	Vol. No.	Positions	Sta. Miles	Pole Sdgs.
20 June	a	1	95	16.1	--
21 "	b	1	70	11.7	19
27 "	c	1	91	14.3	1
28 "	d	2	148	24.7	--
11 July	e	2	126	19.7	89
12 "	f	3	198	32.1	134
13 "	g	3 & 4	203	33.5	226
14 "	h	4	102	16.4	257
18 "	j	5	123	19.3	41
19 "	k	5 & 6	203	33.3	1
20 "	l	6	135	17.1	55
21 "	m	6 & 7	131	18.3	30
25 "	n	7	183	22.3	2
26 "	p	7 & 8	192	23.7	2
27 "	q	8	142	17.9	1
28 "	r	8 & 9	93	12.8	3
Totals			2235	333.2	861

Area in square Statute Miles = 15.0


ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-7878 (Field No. So-1150)

SOUNDINGS

Lat. 27-59.73 Long. 82-40.35 The 8 ft. sounding between positions 29 & 30d was smooth plotted altho subsequent field examinations failed to confirm it. (See note pg. 60, vol. no. 8)

Respectfully submitted,

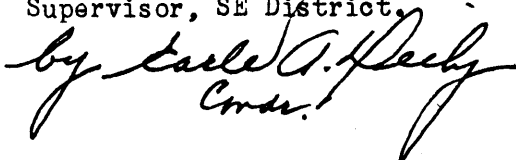
  
Hugh L. Proffitt  
Cartographer.

Norfolk, Va.  
6 Nov. 1951

*The 8-ft. depth was removed from the smooth sheet during verification. The reading was adequately disproved by field examination. An indentation in the initial trace indicates that the pinnacle was caused by momentary failure of the governor.  
R.H.C.*

Approved & Forwarded:

Earl O. Heaton  
Supervisor, SE District

  
Comdr.

RHC

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF CHARTS AND COAST AND GEODETIC SURVEY~~

20 November 1951

Division of Charts: R. H. Carstens

Plane of reference approved in  
9 volumes of sounding records for

HYDROGRAPHIC SHEET 7878

Locality Old Tampa Bay, Florida

Chief of Party: J. D. Thurmond in 1950  
Plane of reference is mean low water, reading  
3.3 ft. on tide staff at Safety Harbor  
15.7 ft. below B. M. 1 (1950)

Height of mean high water above plane of reference is 1.9 feet.

Condition of records satisfactory except as noted below:

*E. C. McKay*  
*Section*  
Chief, ~~Division of Tides and Currents~~

GEOGRAPHIC NAMES

Survey No. H-7878

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Florida</u>									B.G.N	1	
<u>Old Tampa Bay</u>										2	
<u>Courtney Campbell</u>										3	
<u>Causeway</u>				According to a letter from Tampa office 1-16-57, this is now the official name							4
										5	
<u>Cooper Point</u>										6	
<u>Cooper Bayou</u>										7	
<u>Safety Harbor</u>				(town: location of tide gage).							8
<u>Phillippi Point</u>									B.G.N	9	
<u>Safety Harbor</u> ✓										10	
<u>Booth Point</u> ✓										11	
<u>Minkley Bay</u> ✓										12	
<u>Double Branch</u> ✓										13	
<u>Oldsmar</u> ✓									B.G.N	14	
										15	
										16	
										17	
										18	
										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	

Names underlined in red are approved 11-1-57 L HCC

See chart 5786 for placement of names

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .H-7878.

Records accompanying survey:

Boat sheets <sup>1</sup>.....; sounding vols. <sup>9</sup>.....; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls <sup>8 Env.</sup>.....;  
 special reports, etc. 1. ~~Descriptive~~ Report; 1 Smooth Sheet;  
 .....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	.....	2235
Number of positions checked	.....	110
Number of positions revised	.....	41
Number of soundings revised (refers to depth only)	.....	51
Number of soundings erroneously spaced	.....	
Number of signals erroneously plotted or transferred	.....	1
Topographic details	Time	5 hr.
Junctions	Time	.....
Verification of soundings from graphic record	Time	3 hr.
Verification by.....	Total time	25.0 hr.
J. T. Gallahan.....		11 hr
A. R. Stirni.....		
Reviewed by.....	Time	33 hr.
R. E. Elkins.....		
	Date	2-4-52
	Date	4-8-52

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7878

FIELD NO. SC-1150

Florida, Old Tampa Bay, North of Courtney Campbell Causeway

Project No. CS-336

Surveyed in June and July 1950

Scale 1:10,000

Soundings:

808 Fathometer  
NK-7 Fathometer  
Sounding Pole

Control:

Sextant fixes on shore signals

Chief of Party - James D. Thurmond  
Surveyed by - James D. Thurmond and I. R. Rubottom  
Protracted by - W. L. Jonns  
Soundings plotted by - W. L. Jonns  
Verified and inked by - J. T. Gallahan  
Reviewed by - R. E. Elkins, 8 April 1952  
Inspected by - R. H. Carstens

1. Shoreline and Control

The origin of the shoreline and control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The bottom is smooth except where dredging was accomplished in the area immediately adjacent to the earth-fill causeway.

4. Junctions with Contemporary Surveys

There are no contemporary surveys in this area. The present survey extends to the shoreline on the north and west and to the earth-fill causeway on the south. On the east, the charted hydrography is in adequate agreement with present depths except in the vicinity of the causeway, where charted depths do not show the continuation of the dredged area indicated on the present survey.



5. Comparison with Prior Surveys

H-478 reconn. (1855) 1:60,000  
 H-1273 (1875) 1:20,000  
H-4562 (1926-27) 1:20,000

A comparison between the present and prior surveys reveals only minor changes in depths except in the following areas where dredging has been accomplished:

- a. An area with 8-to 30-ft. depths was dredged in former 1-to 13-ft. depths along the earth-fill Courtney Campbell Causeway, eight miles in length, crossing Old Tampa Bay.
- b. An area one-half mile long with 4-to 10-ft. depths has been dredged along the waterfront of the town of Safety Harbor.
- c. A channel with 7-to 8-ft. depths has been dredged to the recently constructed power plant at the west side of Booth Point.

With the addition of a few bottom characteristics, the present survey contains all the essential hydrographic information necessary to supersede these prior surveys within the common area.

6. Comparison with Chart 587 (drawing 13 dated 2/19/52)A. Hydrography

The charted hydrography originates with the present survey after verification and prior to review. The following are the more important revisions made during review.

1. The 4-ft. sounding charted in lat. 28° 01.5', long. 82° 40.7' has been revised to 5 ft. The 1-ft. sounding charted in lat. 27° 59.5', long. 82° 39.2' has been revised to 3 ft. One-ft. depths fall 200 meters east of this 3-ft. depth.
2. The low-water line has been added or revised in -

	Latitude	Longitude
✓	27° 58.1'	82° 41.8'
✓	28° 00.3'	82° 38.7'
✓	28° 00.4'	82° 39.8'
✓	28° 01.0'	82° 40.0'

B. Aids to Navigation

There are no aids to navigation charted within the limits of the present survey.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

This is a special survey made at the request of the Florida Power Corp., and adequately complies with the Project Instructions.


9. Additional Field Work

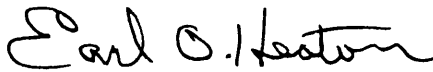
This is a very good basic survey and no additional field work is recommended.

Examined and approved:

  
H. R. Edmonston  
Chief, Nautical Chart Branch

  
H. Arnold Karo  
Chief, Division of Charts

  
L. S. Hubbard  
Chief, Section of Hydrography

  
Earl O. Heaton  
Chief, Division of Coastal Surveys

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H-7878  
Jo fit

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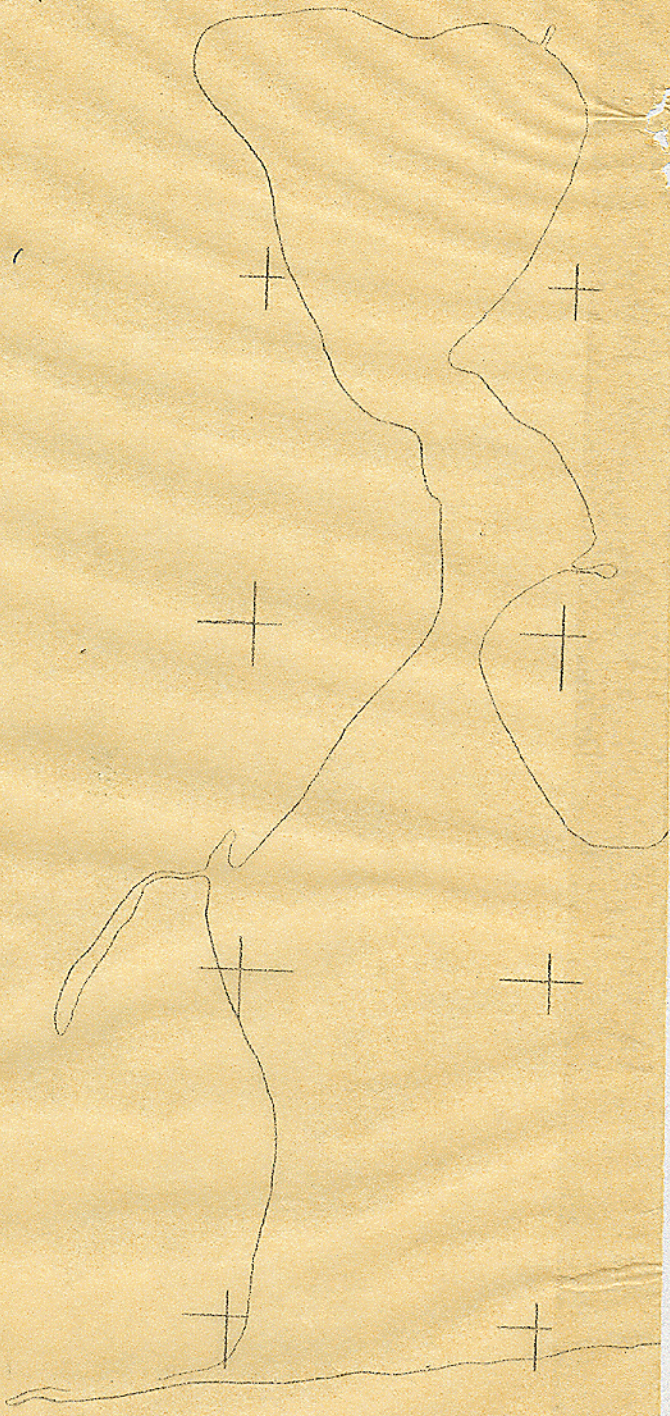
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58'

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# NAUTICAL CHARTS BRANCH

SURVEY NO. H- 7878

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/7/52	1257	J.G. McGinn	<del>Before</del> After Verification and Review <sup>before</sup>
			Partially applied. (added 5' sdg N of bridge)
			<del>Before</del> After Verification and Review <sup>before</sup>
2-15-52	587	R.H. DeLauder	Partially applied. Completely applied before review - <del>for</del>
6 May '58	587	A.E. MacEwen	<del>Before</del> After Verification and Review <sup>before</sup> Some corrections and additions after review.
6 May '60	1257	Trichols	<del>Before</del> After Verification and Review <sup>Thru 587, supra</sup>
30 Nov 61	587	"	<del>Before</del> After Verification and Review <sup>For 3-ft curve</sup>
			Before After Verification and Review
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A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.